Messaging and Server COIN

August 22, 2006

Agenda

- Introduction of the Server Service Delivery Manager
- Messaging Functional Area 6-12 Month Look Ahead
  - Current Status
  - Information Gathering Activities
  - Messaging Solutions
- Questions and Answers
- Server Functional Area 6-12 Month Look Ahead
  - Transformation Lab
  - HP Openview Implementation
  - Server Consolidation
- Questions and Answers
- Future Topics??

Server Service Delivery Manager

Mike Shaffer

Messaging Functional Area

6-12 Month Look Ahead

Current Status - Directory Synchronization

- Task force team member information is current
- Requests have been made by task force team members to remaining admins for information
- Response has been good with few responses still outstanding

Current Status - Active Directory and Exchange

- High level design for Active Directory is under internal reviews
- High level design for Exchange is under internal reviews
- Initial Core system high level design is under internal reviews
- Existing Active Directory (cov.virginia.gov) has been chosen as the base system and will be expanded and modified to meet requirements
- Existing Exchange System (VIRGINIA) has been chosen as the base system and will be expanded and modified to meet requirements

Information Gathering Activities – What to expect?

- **Directory Synchronization Discovery**
  - Existing discovery templates
  - Directory Exports
  - Follow up Questions and one on one discussions with administrators
- **Email and Directory Services Discovery**
  - Discovery template with information from previous discovery efforts pre-populated
  - One on one discussions with system administrators

What to expect? (cont)

- **General Information**
  - **Messaging System Contact**
    - We will need a contact who is familiar on a technical level with your current messaging system. While we will have gathered general information about each system through other means, we will need to follow up on specific detailed information with a knowledgeable technical contact.
  - **Directory Contact**
    - We will need a contact who is familiar on a technical level with your current directory system. While we will have gathered general information about each system through other means, we will need to follow up on specific detailed information with a knowledgeable technical contact.

What to expect?

- Site\System Specific
  - Server Counts
  - Server Roles
    - Email
    - Blackberry
    - Domain Controller
    - Novell Directory Server (e-directory, NDS)
    - Fax Server
    - Etc.

What to expect? (cont)

- DNS information
  - DNS Zone files
    - Forward and Reverse lookup zones
  - Server Configuration
    - Forwarders and internet access
    - Replication and zone transfer
- WINS
  - WINS database files
  - Server Configurations

What to expect? (cont)

- **General Information**
  - **DNS Contact**
    - We will need a contact who is familiar on a technical level with your current DNS system. While we will have gathered general information about each system through other means, we will need to follow up on specific detailed information with a knowledgeable technical contact.
  - **Security Contact**
    - We will need a contact who is familiar with your current agencies specific security policies and procedures. We will have requirements both for access to the current systems and for configuration of the enterprise system to ensure it meets the needs of all agencies and users.

What to expect? (cont)

- **General Information**
  - **Network Connectivity Contact**
    - We will need a contact who is familiar on a technical level with your current network infrastructure and the requirements, processes, and procedures for establishing connectivity with external systems. We will have requirements to create connections between enterprise and agency systems for Directory Synchronization, Migration Tool deployment, Directory Migration, and Messaging Migration. We will need a knowledgeable and authorized contact to assist with the efficient and secure establishment of required connectivity via firewalls, WAN connections, Routing equipment, and any other intermediary device or system.

When to expect it

- **Directory Sync Team:**
  - Started and hoping to wrap up in the next few weeks
- **E-mail and Directory Services Team:**
  - Pilot to start this week
  - Will follow the Site Survey teams incorporating data that they gather
- **General Info**
  - E-mail will be sent in the next couple of weeks asking for the info. If you have it, e-mail edwin.rodriguez@ngc.com with the info

Look Ahead – Directory Synchronization

- Lab installation
- Development and Simulation
- Production Implementation
- Commonwealth Wide Synchronization

Directory and Messaging Infrastructure

- Lab installation
- Development and Simulation
- Core Infrastructure Build

Questions?

Server Functional Area

Transformation Activities
Twelve Month Overview

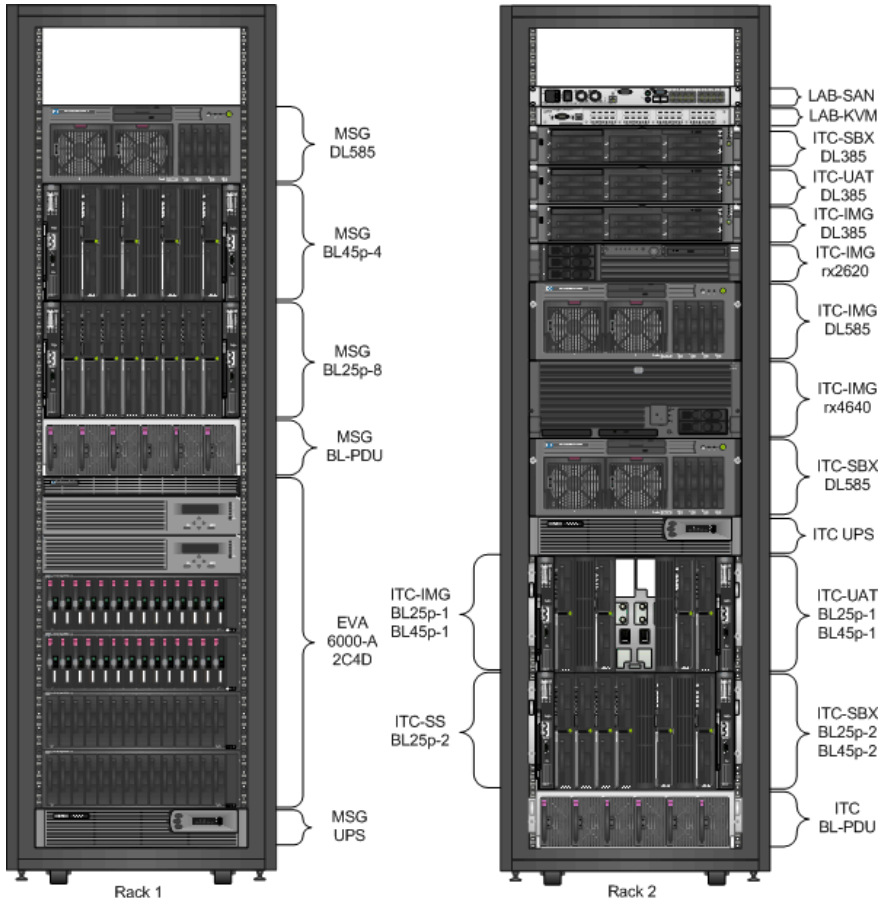
Current Projects

- Transformation Lab
- HP OpenView Phase 1 Implementation
- Server Consolidation and Move Phase 1

Transformation Lab Overview

- Initially located in RPB Data Center
- Supports planning, design, and process development for transformation activities
- Contains four (4) separate and flexible environments:
  - Lab Steady State
  - Image Development
  - Sandbox
  - Quality Assurance/User Acceptance Testing (QA/UAT)

Transformation Lab Overview (cont.)



- x86 Hardware includes:
  - Two (2) and four (4) processor blades
  - Two (2) and four (4) processor rack mounts
- UNIX Hardware includes:
  - Integrity rx2620
  - Integrity rx4640
- SAN

Transformation Lab Current Activities

- Meeting with NG/VITA security and network current operations teams to assist with design configurations
- Completing design and requirements documentation for VAR process
- Waiting on Server and Rack Hardware Delivery
- Preparing Data Center (Floor Space, Electrical, Network)

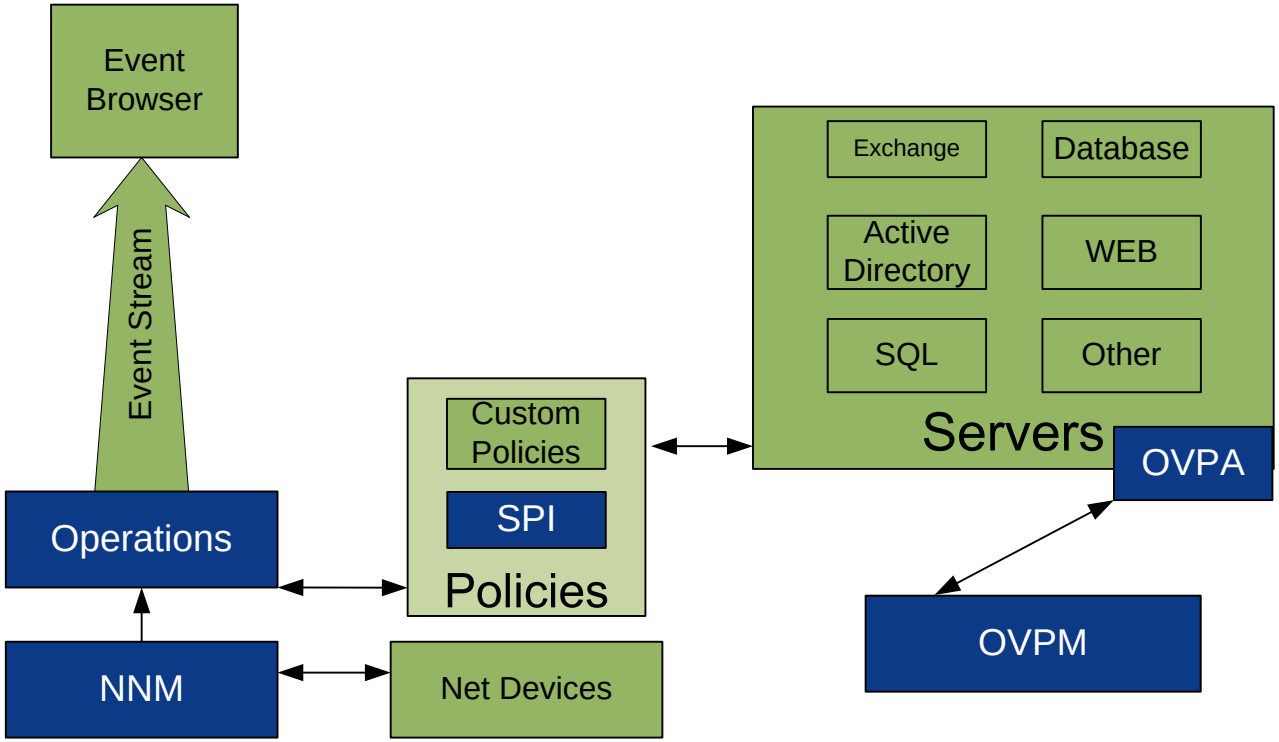
HP OpenView Phase 1 Overview

- Initial implementation in RPB
- Install Network Node Manager (NNM) to support milestones for:
  - Interim Infrastructure Operations Center (limited server monitoring)
  - Temporary NOC (limited network monitoring)
- Install and patch Operations for UNIX (OVOU) and Operations for Windows (OVOW)
  - Build core set of templates and policies
- Install Performance Manager (OVPM) and Performance Agent (OVPA)

HP OpenView Phase 1 Overview (cont.)

- Install Smart Plug-ins (SPIs) for:
  - UNIX Operating System
  - Windows Operating System
  - Oracle
  - PeopleSoft
  - Active Directory
  - Exchange
  - SQL
  - Citrix
- Install OVOU, OVOW, and OVPA agents to selected servers in the RPB

HP OpenView Phase 1 Overview (cont.)



HP OpenView Phase 1 Current Activities

- Establishing basic, fundamental, core operational configuration parameters to expedite subsequent phases
- Meeting with NG/VITA security and network current operations teams to assist with design configurations
- Completing design and requirements documentation for VAR process
- Receiving server and rack hardware

Server Consolidation Phase 1 Overview

- Design End-State Environment
  - Hardware Configurations
  - Operating System Images
  - Virtual, Citrix, File and Print Infrastructures
- Perform Server Discovery and Identify Consolidation Candidates
- Consolidate Servers in Place in the RPB
- Prepare for Move to CESC

Server Consolidation Architectural Principles

- Standardize
  - Reduce Platform and Operating System Variance
- Simplify
  - Consolidate Resources into CESC Data Center
  - Number of Platforms and Operating Systems
- Modularize
  - Server, Storage and Network Modular Components
  - Resource Sharing (Server Farms and Virtualization)
- Integrate
  - Centralize Management
  - Provide a Lab for Solution Development

Server Consolidation Process Guidelines

- Validate Processes and Technology Before Introduction to the Environment
- Maximize Re-use of Existing Servers
- Utilize Existing NGC/VITA Personnel for Effective Transition of Responsibilities
- Consolidate in Place Before Relocation Where Appropriate
- Implement RPB Before Agencies
  - Consolidation and Virtualization
  - Relocation
- Base on HP's Consolidation Methodology

Server Consolidation Platform Guidelines

- Maximize Use of Blade Servers
- Rack-mount by Exception
  - Network Adjacency
  - Resource Requirements
- Provide Redundant Network and SAN Connectivity
- Standardize Platforms
  - x86 Blades – 2 and 4 Processors
  - x86 Rack-mount – 2 and 4 Processors
  - UNIX Rack-mount – As Needed
- Standardize Operating Systems

Server Consolidation Virtualization Guidelines

- Maximize Virtualization
  - VMware ESX Server v3.x
- Use Physical Servers by Exception
  - Security and Support Delineation
  - Resource Constraints (Hardware, Performance)
- Maximize Use of SAN
- Delineate Operational Environments
  - Production, Development, QA/UAT, Etc.

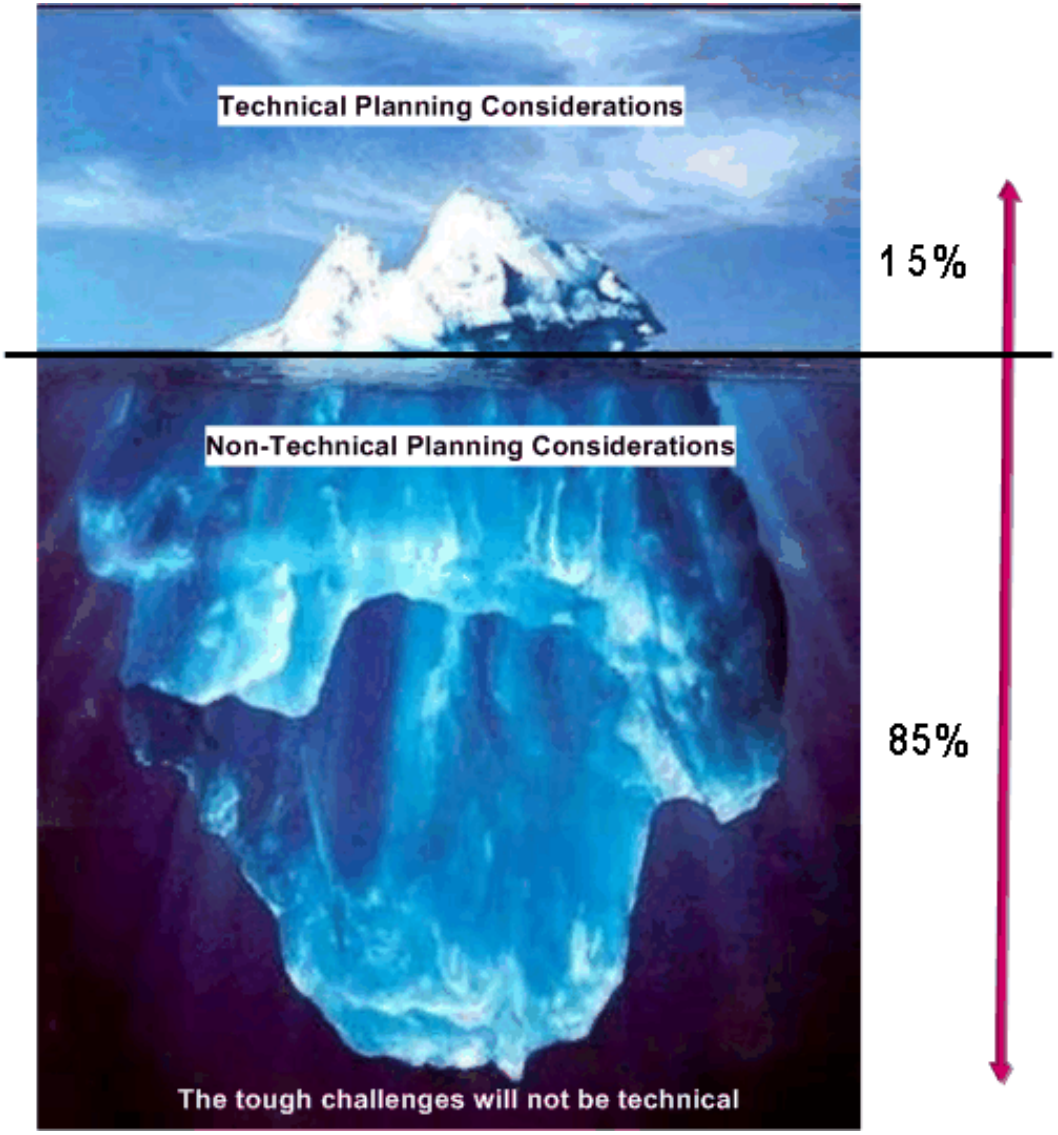
Server Consolidation File and Print Guidelines

- Based on Microsoft Windows Server 2003
- Utilize Existing Directory Services
- Use Network Attached Storage (NAS) as Default Platform
- Re-use Hardware by Exception
- Maximize Resource Sharing

Server Consolidation Citrix Guidelines

- Hosted by Microsoft Windows Server 2003
- Based on Citrix Metaframe XPE Presentation Server
- Configure as a Single Farm with Multiple Zones
- Host Different Agency Applications on the Same Farm
  - Individual Zones Can be Specific to One Agency

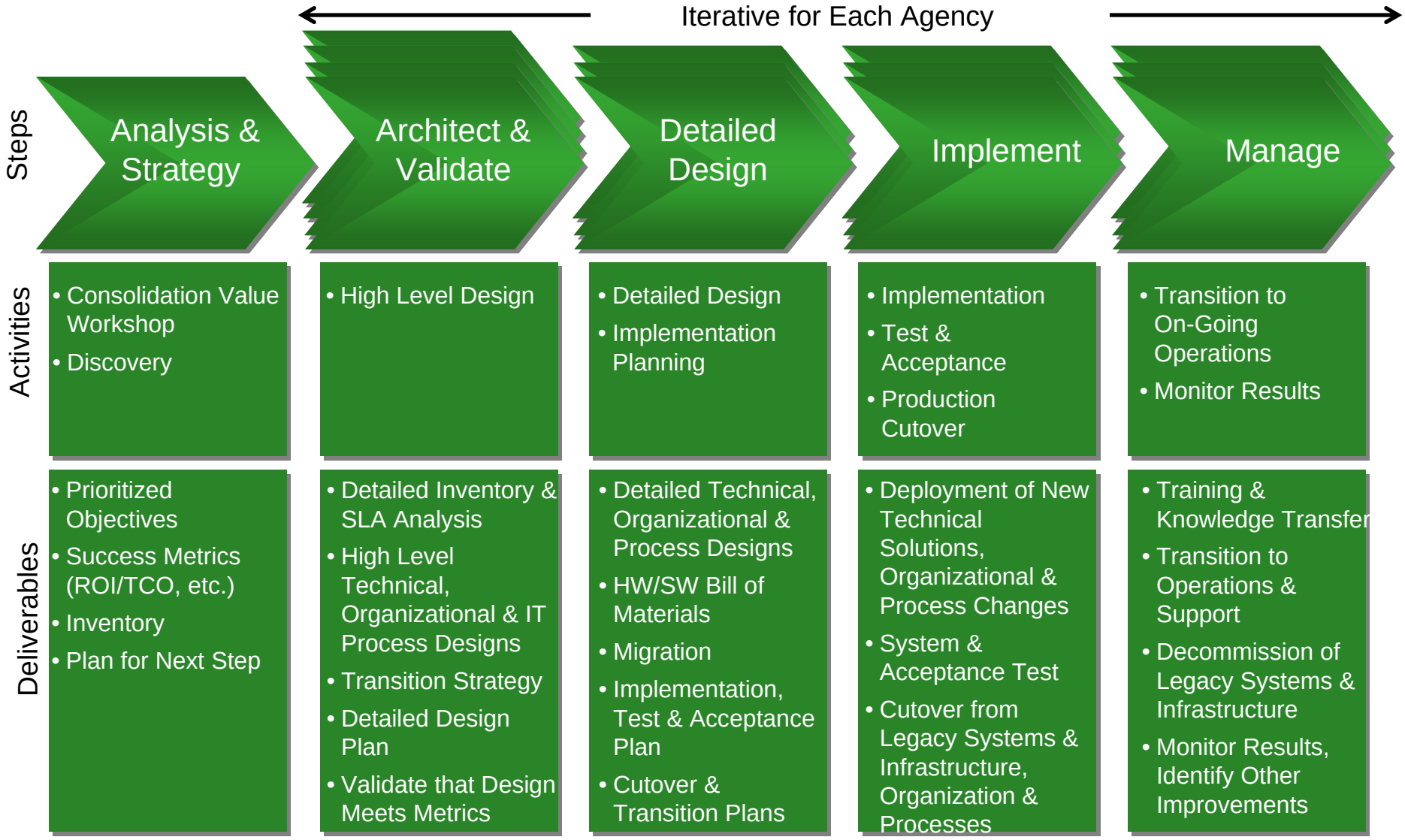
Server Consolidation



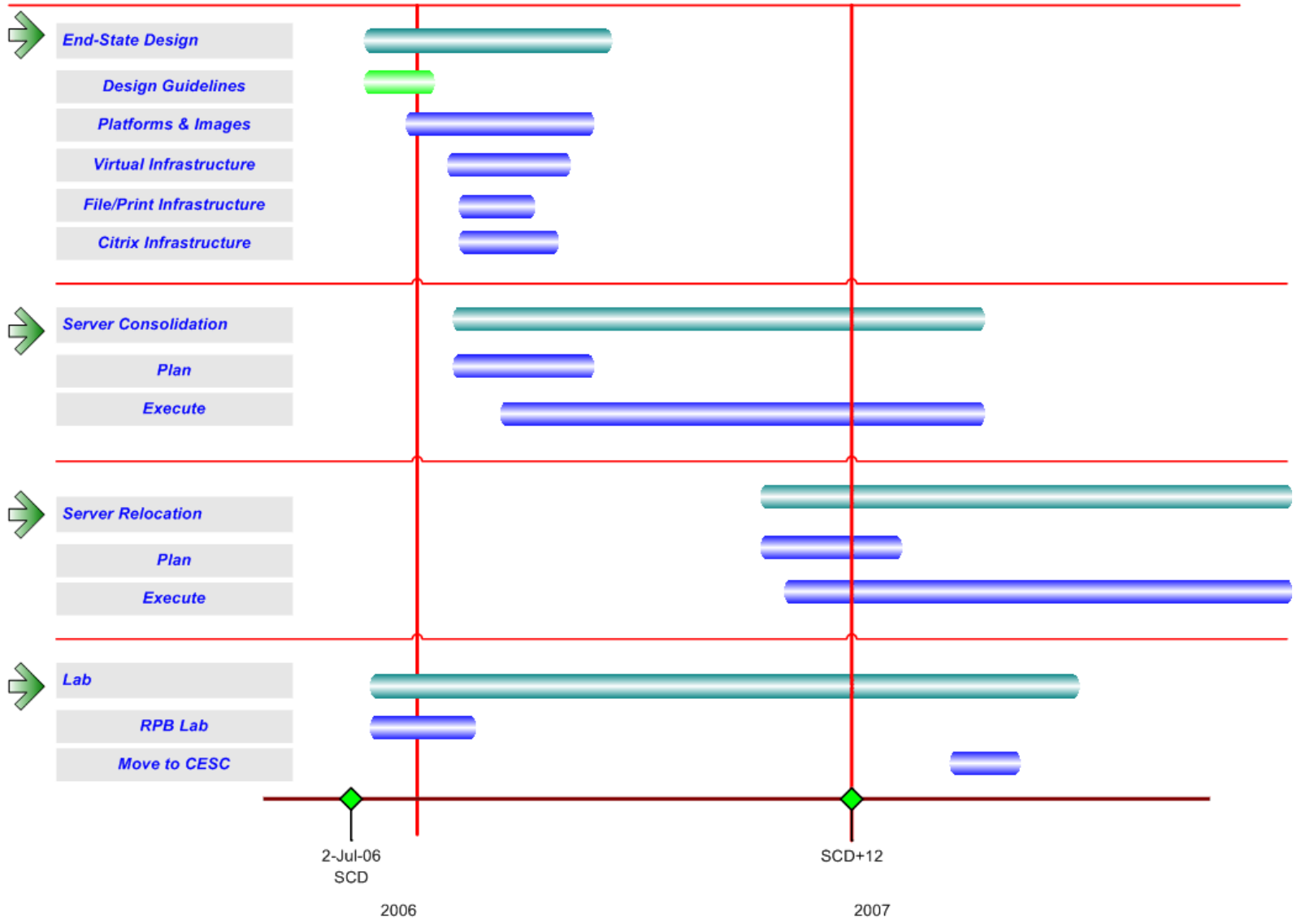
More Than Just

Technical Considerations

Server Consolidation - HP's Methodology



Server Consolidation Phase 1 Timeline



Server Consolidation Phase 1 Current Activities

- Completing design and requirements documentation for VAR process
- Developing End-State Design for:
  - Images (Microsoft, Linux, HP-UX)
  - Virtual Infrastructure
  - Citrix Infrastructure
  - File and Print Infrastructure

Questions?

Future Topics